

Remarks

1. The Examiner's reconsideration of the application is urged in view of the amendments above and comments which follow.

2. Claim Rejections – 35 U.S.C. § 103

In the Office Action, page 3, point 3, claims 1-10, 17-20 and 23-26 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene et al. (US 6020868) in view of Someya et al. (US 5,396,257). Applicants respectfully disagree.

Amended claim 1 describes a method for controlling a tiled large-screen emissive display. The emissive display comprises at least a plurality of first subdivisions, each of said first subdivisions comprising a plurality of emissive devices. The method comprises:

- for each of the first subdivisions, setting the emissive devices so that each of said first subdivisions is optimized with respect to a first subdivision target value for that first subdivision, and

after setting the emissive devices,
- for the emissive display, setting the first subdivisions so that said emissive display is optimized with respect to an emissive display target value for said emissive display

wherein setting the emissive devices and setting the first subdivisions includes initial and periodic calibration.

The feature: " wherein setting the emissive devices and setting the first subdivisions includes initial and periodic calibration" has been added to claim 1. This addition is based on claim 19 as filed and on the specification page 24, lines 24-26.

Greene discloses a tiled, flat-panel display having color-matching between the tiles. This matching is accomplished by a direct transformation of video data through values stored in tables. Input data are transformed into transformed values, based on

the value of the input data and the spatial location of the destination of this data (col. 3, lines 6-10). The following differences exist between the method according to claim 1 and the apparatus, disclosed in Greene:

- Greene does not disclose a setting of emissive devices or of first subdivisions. Setting means that one or more parameters of the emissive device (e.g. in the case of OLED's: the pre-charge time) is set to a given value. In Greene, the video signals (input data) are transformed into new values.
- Greene does not contain any optimization with respect to any target value; video data are transformed using values stored in tables, without any optimization process.
- Greene does not disclose a target value at any level of the tiled display; Greene tries to solve the problem of the "unacceptable, high-gradient condition", i.e. large changes in luminance or chromaticity between one region of the display but Greene accepts the "low-gradient"-rule, i.e. small gradual changes in luminance or chromaticity (from col. 1, line 63 to col. 2, line 4 and col. 2, lines 36-41).
- Greene does not disclose an initial and a periodic calibration.

The apparatus disclosed in Someya is a multiscreen apparatus, combining a plurality of image display units, each display unit being a CRT display. In each display unit, the entire CRT screen can, from a theoretical point of view, be divided into a certain number of blocks (see e.g. col. 5, lines 13 – 16 and col. 6, lines 29 – 33; Fig. 7, the elements e_{ij}). The multiscreen apparatus of Someya reduces the luminance and color shading within each display unit and between the display units. This reduction is achieved by applying iteratively two steps: firstly the luminance/color shading within the individual display unit is eliminated, and secondly the luminance/color difference between the display units is removed (col. 2, lines 52-62). This elimination and removal is obtained by electrically correcting video signals (see from col. 4, line 65 to col. 5, line 5). These corrections are performed on the basis of look-up tables (LUT),

the data of which may be computed by using a given function, e.g. a parabolic wave (col. 5, lines 24-28).

The following differences exist between the method according to claim 1 and the apparatus disclosed in Someya:

- as already admitted in the Office Action, Someya lacks clear teaching that each display unit comprises a plurality of emissive devices;
- in Someya, there is no setting of emissive devices, nor is there a setting of first subdivisions (the display units). Setting means that one or more parameters of the emissive device (e.g. the pre-charge time) is set to a given value. In Someya, the elimination of the shading is obtained by a correction of the video signal itself.
- the apparatus of Someya does not contain any optimization either; an optimization presupposes a selection of a suited value among a series of possible values (see e.g. the description, page 24, lines 28-30). In Someya, the video signals are corrected on the basis of different LUT's and it supposed that these corrections will give a good result.
- Someya does not contain any indication that the corrections contain an initial and a periodic calibration. The Office Action referred to a passage on col. 5, lines 38-43 of Someya regarding claim 19 (in which a periodic calibration was claimed). However, this passage discloses only an iterative process for getting a uniform luminance over the complete apparatus i.e. the process of correcting the shading in individual display units followed by correcting the shading between the individual display units may be repeated until uniform luminance is obtained ("If luminance shading occurs in each core as a result of corrections of luminance shading between cores, corrections for luminance shading in each core are made again and corrections for luminance shading between cores are made. This is repeated until the entire face becomes uniform.").

It can thus be concluded that the following features are not disclosed in Greene nor in Someya:

- the setting of emissive devices or first subdivisions;
- the optimization with respect to a target value;
- an initial and a periodic calibration.

Because not all limitations of amended claim 1 are disclosed in Greene and Someya, a combination of the teachings of both references cannot produce the method described in claim 1.

It is thus submitted that, at the time the invention was made, amended claim 1 was non-obvious to a person having ordinary skill in the art to which the subject matter pertains.

Claims 2-10, 17, 18, 20, 23 and 26 are claims dependent on claim 1; these claims are thus also submitted to be non-obvious over the prior art.

Claim 19 has been cancelled.

Claim 24 is an independent apparatus claim, drafted along the lines of independent method claim 1. The reasoning above, applied in relation with claim 1, thus also applies to claim 24 and this claim is thus also novel and non-obvious over the prior art.

In order to be complete: in the Office Action the Examiner states that: "Regarding claim 17, Someya discloses adjusting a control parameter of the display device (col.4, lines 37-59)."

Applicants respectfully disagree. The cited passage in Someya mentions a series of data converters (4a, 4b, 4c and 4d). According to the sentence starting at line 65 of col.4, the video signal is inputted to these data converters and is converted to data

corrected in luminance. Someya does thus not disclose the adjustment of a control parameter of the display device but discloses the correction of the video signal.

3. Claim Rejections – 35 U.S.C. § 103

In the Office Action, page 8, point 4, claims 11-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene in view of Someya as applied to claim 3, and further in view of Miller et al. (USPN: 7184067). Applicants respectfully disagree.

Claims 11-14 depend from claim 1. Claim 1 is submitted to be allowable; and thus claims 11-14 are also submitted to be allowable.

4. Claim Rejections – 35 U.S.C. § 103

In the Office Action, page 9, point 5, claims 15 and 16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Greene in view of Someya as applied to claim 3, and further in view of Cok et al. (USPN: 7161566). Applicants respectfully disagree.

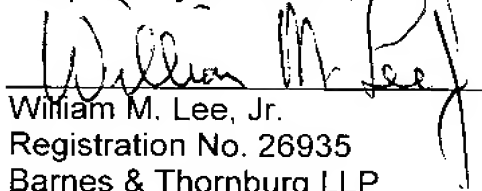
Claims 15 and 16 depend from claim 1. Claim 1 is submitted to be allowable; and thus claims 15 and 16 are also submitted to be allowable.

5. Conclusion

Applicants submit that the claims are now in condition for allowance, and such action is requested.

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Respectfully submitted,



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